

REMARKS

Claims 1-5 are in the application and claims 1-4 have been amended.

The invention is specifically directed to an electric hand tool apparatus for driving a drilling tool including an electric motor free of a collector and slip ring, with motor control electronics for operating the motor, a rpm-dependent clutch and means for measuring the rpm of the rotor or the clutch.

The claims have been amended to overcome the rejection under 35 U.S.C. § 112 and the objection for the typographical errors in claims 2 and 3.

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as unpatentable over Guzzella (5,584,619) in view of Steffen (6,123,158).

GUZZELLA 5,584,619

The Guzzella patent is directed to a method of and arrangement for preventing accidents during operation of a manually-operated machine tool with a rotatable toolbit.

While the use of brushless motors may be known for hand-operated drilling tools, Guzzella does not disclose a rpm-dependent clutch. The clutch in the reference is "as electromagnetic coupling 5", note column 4, line 20.

A rpm-dependent clutch with an electric motor free of a collector and slip ring are essential for the claimed apparatus. Guzzella does not disclose or suggest such an apparatus.

Guzzella discloses angular speed sensors but affords no suggestion of means for measuring the rpm of the rotor or of the clutch.

In the reference there is no active reduction or braking of the rpm of the motor, rather only an interruption of the current flow.

In view of these differences between the claimed invention and Guzzella it is submitted that the reference does not provide a basis for the rejection of applicants' claims.

STEFFEN 6,123,158

Steffen discloses an electric tool with ducted cooled control electronics.

The reference does not disclose or suggest a rpm-dependent clutch. In Steffen between the motor 2 and the crank mechanism there is a fan impeller 11 to

avoid overheating for components supplying drive energy for the motor. Such a suggestion would not direct a person skilled in the art of the applicants' invention.

While Steffen discloses control electronics, the invention in the reference is an arrangement to provide cooling of the coolant electronics, not to avoid damage to the electric tool.

Steffen may suggest a cooling arrangement for use in Guzzella, but adds nothing to Guzzella which would afford any basis for the rejecting of applicants' claims.

Therefore, in view of the amendments to the claims and the lack of any basis in the references for rejecting applicants' claims, it is respectfully submitted that the claims are allowable and such allowance is solicited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail and addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 5, 2003.

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